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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/014,323	12/10/2001	Bruce Cole	Juniper-1 (JNP-0031)	1492

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EXAMINER

NG, CHRISTINE Y

ART UNIT	PAPER NUMBER
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2616

MAIL DATE	DELIVERY MODE
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08/23/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/014,323	COLE ET AL.	
	Examiner	Art Unit	
	Christine Ng	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-28 and 30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-28 and 30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 23 and 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 23 recites the limitation "stored path information" in line 9. There is insufficient antecedent basis for this limitation in the claim.

Claim 27 recites the limitation "stored path information" in line 11. There is insufficient antecedent basis for this limitation in the claim.

Response to Arguments

2. Applicant's arguments with respect to claims 11-28 and 30 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 11-13, 15-28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 7,002,905 to Khouri et al in view of U.S. Patent No. 6,347,085 to Kelly.

Referring to claim 11, 16, 18 and 19, Khouri et al disclose a method for use in a

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router having, at a given time, a currently designating routing facility (Figure 2, processor unit A 204) and a current standby routing facility (Figure 2, processor unit B 206). Refer to Column 6, lines 54-62. The method comprises:

a) Informing (Figure 4, step 400) an external node (Figure 3, CPU 304 which connects processor unit to other switches through chassis bus 210) that the router has redundant routing facilities. In Figure 4 step 400, the CPU is informed of whether or not a standby card is present. Refer to Column 3, line 58 to Column 4, line 42; and Column 6, lines 58-62.

c) Providing, with the currently designated routing facility when it is in a state of being the designated routing facility, network information (status of processor unit A 204) to the external node. Processor unit A 204 stores and sends state table and routing table information to CPU 304 to perform routing. By sending information to CPU 304, CPU 304 knows that the status of processor unit A 204 is operational. Refer to Column 2, lines 13-20; Column 4, lines 34-42; and Column 5, lines 49-61.

d) Providing, with the current standby routing facility when it is in a state of being the standby routing facility, network information (status of processor unit B 206) to the external node. When there is an error in the active processor unit A 204, CPU 304 polls backup processor unit B 206 to see if its status is operational before switchover. Refer to Column 6, line 63 to Column 7, line 8.

Khoury et al also do not disclose: b) Informing an external node of the identify of the currently designated routing facility.

Kelly discloses a method of allowing communication between a packet-switched data network and a circuit-switched data network, wherein a telephone number is resolved into the IP address of a gateway. Using the gateway IP address, a calling party can direct packets from a PSTN network to an IP network, and vice versa. The calling party is also provided with a list of IP address of other redundant, alternate gateways through which to route packets in case the primary gateway fails. Refer to Column 2, lines 49-53; Column 3, line 52 to Column 4, line 12; and Column 17, lines 21-34. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include: b) Informing an external node of the identify of the currently designated routing facility. One would have been motivated to do so so that the external router knows which routing facility to use to route packets in case of failure.

Referring to claim 12, Khouri et al disclose in Figure 2 wherein the currently designated routing facility and current standby routing facility share a common forwarding facility (chassis bus 210). Refer to Column 3, lines 58-67.

Referring to claims 13 and 17, Khouri et al do not disclose wherein the act of informing an external node that the router has redundant routing facilities includes generating and transmitting a message including an identification of the router, address information of the currently designated routing facility, and address information of the current standby routing facility.

Kelly discloses a method of allowing communication between a packet-switched data network and a circuit-switched data network, wherein a telephone number is resolved into the IP address of a gateway. Using the gateway IP address, a calling

party can direct packets from a PSTN network to an IP network, and vice versa. The calling party is also provided with a list of IP address of other redundant, alternate gateways through which to route packets in case the primary gateway fails. Refer to Column 2, lines 49-53; Column 3, line 52 to Column 4, line 12; and Column 17, lines 21-34. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include wherein the act of informing an external node that the router has redundant routing facilities includes generating and transmitting a message including an identification of the router, address information of the currently designated routing facility, and address information of the current standby routing facility. One would have been motivated to do so so that the external node can use the address of the designated routing facility to route packets until a switchover occurs, after which the external node uses the address of the standby routing facility to route packets; thereby facilitating communication without loss of information.

Referring to claim 15, Khouri et al disclose in Figure 4 wherein the method further comprises:

- e) If a failure of the currently designated routing facility is determined, then
 - i) electing (steps 400 and 402) the current standby routing facility as a new designated routing facility. Refer to Column 6, line 54 to Column 7, line 8.

Khouri et al do not disclose ii) informing the external node of the identify of the newly elected new designated routing facility.

Kelly discloses a method of allowing communication between a packet-switched data network and a circuit-switched data network, wherein a telephone number is

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resolved into the IP address of a gateway. Using the gateway IP address, a calling party can direct packets from a PSTN network to an IP network, and vice versa. The calling party is also provided with a list of IP address of other redundant, alternate gateways through which to route packets in case the primary gateway fails. Refer to Column 2, lines 49-53; Column 3, line 52 to Column 4, line 12; and Column 17, lines 21-34. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include ii) informing the external node of the identify of the newly elected new designated routing facility. One would have been motivated to do so so that in case the designated routing facility fails, the external node can use the new address of the alternate routing facility to route packets in case of failure.

Referring to claims 20, 24 and 28, Khouri et al disclose a method for use in a router adapted to interact with an external router having, at a given time, a currently designated routing facility (Figure 2, processor unit A 204) and a current standby routing facility (Figure 2, processor unit B 206). Refer to Column 6, lines 54-62. The method comprises:

b) Accepting, from the currently designated routing facility of the external router when it is in a state of being the designated routing facility, network information (status of processor unit A 204).

c) Using the network information accepted from the currently designated routing facility of the external router for determining routes. Processor unit A 204 stores and sends state table and routing table information to CPU 304 to perform routing. By sending information to CPU 304, CPU 304 knows that the status of processor unit A

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204 is operational. Refer to Column 2, lines 13-20; Column 4, lines 34-42; and Column 5, lines 49-61.

d) Accepting, from the current standby routing facility of the external router when it is in a state of being the standby routing facility, network information (status of processor unit B 206), but not using it for determining routes. When there is an error in the active processor unit A 204, CPU 304 polls backup processor unit B 206 to see if its status is operational before switchover. The state table and routing table information of processor unit B 206 is not yet used for determining routes since switchover has not yet occurred. Refer to Column 6, line 63 to Column 7, line 8.

Khoury et al do not disclose a) Accepting, from the external router, the identify of the currently designated routing facility. Refer to the Kelly rejection portion of the rejection of claims 11, 16, 18 and 19.

Referring to claims 21 and 25, Khoury et al disclose wherein the method further comprises:

e) Storing the network information accepted from the current standby routing facility of the external router. CPU 304 determines the operational status of processor unit 206 B. Refer to Column 6, line 63 to Column 7, line 8.

Referring to claims 22, 23, 26 and 27, Khoury et al disclose in Figure 4 wherein the method further comprises:

e) Accepting, from the external router, an indication that the currently designated routing facility has failed. Refer to Column 6, lines 54-57.

f) Accepting (steps 400, 402 and 404), from the external router, an indication that the formerly current standby routing facility has been elected as a new designated routing facility. Refer to Column 6, line 54 to Column 7, line 8.

g) Using path information from the newly elected new designated routing facility. Processor unit B 206 has state table and routing table information. Refer to Column 2, lines 13-20; and Column 5, lines 49-61.

Referring to claim 30, Khouri et al disclose wherein the router further comprises:

d) Means for electing the current standby routing facility as a new designated routing facility if a failure of the currently designated routing facility is determined. Refer to Column 6, line 54 to Column 7, line 8.

Khouri et al do not disclose e) Means for informing the external node of the identify of the newly elected new designated routing facility. Refer to the Kelly rejection portion of the rejection of claim 15.

5. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 7,002,905 to Khouri et al in view of U.S. Patent No. 6,347,085 to Kelly, and in further view of U.S. Publication No. 2002/0021675 to Feldmann.

Khouri et al do not disclose wherein the act of informing an external node that the router has redundant routing facilities uses an existing BGP message format.

Feldmann disclose that an autonomous system AS typically employs an interdomain routing protocol, such as BGP, to select paths between different autonomous systems. The interdomain reachability information combined with the intradomain information is used to construct a forwarding table. Refer to Sections 0022,

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0032 and 0036. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include wherein the act of informing an external node that the router has redundant routing facilities uses an existing BGP message format. One would have been motivated to do so since the IS-IS protocol is a typical interdomain routing protocol used to create forwarding tables.


Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine Ng whose telephone number is (571) 272-3124. The examiner can normally be reached on M-F; 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

C. Ng 
August 16, 2007


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